UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON D.C., 20460

OFFICE OF
CHEMICAL SAFETY AND
POLLUTION PREVENTION

PC Code: 071503
DP Barcodes: 396214
Date: October 18, 2012
DECISION: 456487

MEMORANDUM

SUBJECT: Review of new fludioxonil product: eFOG-80 FDL, EPA Registration Number 64864-AT.

TO: Erin Malone, Risk Manager
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Registration Division (7505P)

FROM: Sarah Winfield, Risk Assessment Process Leader 10.18.12
Environmental Risk Branch IV
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REVIEWED BY: Charles Peck, Environmental Engineer 18 Oct 2012
for Cheryl Sutton, Ph.D., Environmental Scientist 10/18/12
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APPROVED BY: Marietta Echeverria, Branch Chief 10/18/12
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The Environmental Fate and Effects Division (EFED) has completed its review of the fludioxonil (fungicide, PC Code 071503) post-harvest fogger product eFOG-80 FDL (EPA Registration Number 64864-AT) submitted by Lewis & Harrison, LLC on behalf of Pace International, LLC. The proposed label/use pattern involves applying the 8% fludioxonil product to pome fruit in cold storage via thermal fogging (heating up the product and introducing it through a pipe into the storage facility; application rate of 0.011 lb. fludioxonil per 2,200 lb. fruit). After application, there is 8 hours of no ventilation followed by 1 hour of mechanical ventilation, which is then followed by another 24 hours of no ventilation.

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Based on this use pattern, fludioxonil has the potential to reach non-target organisms via ventilated air contaminated with fludioxonil However, based on the low vapor pressure ($5.33x10^{-9}$ Torr) and low estimated Henry's Law Constant ($1.16x10^{-9}$ atm-m^3/mol)[1], EFED considers exposure via air unlikely to be a significant pathway of exposure. If the pome fruit are washed (or if the facility is washed after the pome fruit are removed), there also may be potential to reach non-target organisms via washwater contaminated with fludioxonil. Regarding exposure via contaminated washwater, the proposed label includes the following environmental hazards statement, expected to mitigate risk from this pathway:

> *Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance, contact your State Water Board or Regional Office of the EPA.*

Additionally, currently registered agricultural and non-agricultural use patterns, such as ground and aerial spray applications and drench applications are expected to result in greater environmental exposure relative to the proposed use. A Screening Level Usage Analysis (SLUA) conducted by the Agency, indicates that the annual total agricultural usage (1998-2008) averaged 13,000 pounds active ingredient (a.i.) for approximately 5 million acres.[2] Additionally, there are currently registered post-harvest uses (including in facility uses) on fruits and/or vegetables by one or more of the following application methods: dip, drench, flood, or spray.[3]

Consequently, EFED concludes that this use pattern will result in negligible exposure to non-target organisms. If EFED is informed of environmental or ecological incidents resulting from this use pattern, and/or if over time this use pattern becomes a significant type of fludioxonil usage (*i.e.*, lbs. of fludioxonil per year used for post-harvest thermal fogging), EFED may reconsider this conclusion.

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[1] (USEPA, 2011a). Registration Review: Preliminary Problem Formulation for Environmental Fate, Ecological Risk, Endangered Species, and Drinking Water Exposure Assessments for Fludioxonil. Environmental Fate and Effects Division, United States Environmental Protection Agency. June 17, 2011.

[2] (USEPA, 2011b). BEAD Chemical Profile for Registration Review: Fludioxonil (PC code: 07 1503). U.S. Environmental Protection Agency, Office of Chemical Safety and Pollution Prevention, Biological and Economic Analysis Division. Jan. 12, 2010.

[3] USEPA, 2011a.